


Brief CV

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| Research Area | Waste and Wastewater Management, Waste to Energy, Integrated Water management | | | |

Brief introduction of your research experience:

Dr. Petros Gikas is **Associate Professor** at the **School of Environmental Engineering, Technical University of Crete, Greece**, and **director of the Laboratory of "Design of Environmental Processes"**, since August 2009. His research interests are focused on **municipal, industrial and agricultural waste and wastewater management**. He is specifically active in the design to novel wastewater treatment processes with emphasis in low cost – low energy treatment processes and water reclamation and reuse applications. He is also working on **effective biosolids removal** and on **energy recovery from biosolids and municipal solid waste, utilizing thermal or biological processes**. He is also engaged in research on **integrated water resources management**. From 2005 he teaches the course "**Design of Environmental Processes and Environmental Impact Assessment**" of the 8th and 9th semester at the School of Environmental Engineering, Technical University of Crete. He also teach the postgraduate courses "**Advanced Wastewater Treatment Technologies**", "**Biorefineries-Waste Valorization**" and "**Environmental Impact Assessment**". During the academic year 2006-2007 he visited the **University of California (UC), Davis, USA**, where he was engaged in environmental research at the Departments of Civil and Environmental Engineering, and Biological and Agricultural Engineering. He also thought at the Department of Biological and Agricultural Engineering of UC Davis the postgraduate course "Management and Treatment of Wastewater". Dr. Gikas has scientific collaboration with the Department of Environmental Engineering **Fatih University, Turkey**, Department of Chemical Engineering **University College, London**, Departments of Civil and Environmental Engineering, and Biological and Agricultural Engineering **UC Davis, California**, Department of Earth and Environmental Engineering, **Southern Methodists University, Texas**, Department of Civil and Environmental Engineering **Columbia University, New York** and Swiss Federal Institute for Environmental Science and Technology (**EAWAG**), **Zurich**. During his academic carrier, Dr. Gikas has supervised a number of projects in collaboration with the industry and with public enterprises.

During his academic carrier, Dr. Gikas has served as research consultant in a number of projects, including, the preliminary studies for **water reclamation and reuse** for **Santorini, Paros and Skiathos** islands, the **water preservation study for Procter and Gamble S.A.**, the development of **Anammox process for municipal wastewater treatment** for **M2 Renewables, Inc., California**. He supervised the **Water Management Plan for the Aegean Islands**, focusing on point pollution sources. He is currently working on a study for the **exploitation of electric energy from the largest landfill** in Crete.

Dr. Gikas currently serves a special advisor for the **Hellenic Central Water Agency**, for issues related with the

implementation of the **Water Framework Directive 2000/60EC**, and represents Greece in the **European Commission Working Group “Chemicals”**, for Environmental Quality Standards. He is also advisor to the **Greek-German Assembly** (Deutsch-Griechische Versammlung-DGV), for waste and wastewater management issues.

Between 2002-2009, Dr. Gikas was employed by the **Ministry of Environmental Planning and Public Works**, supervising the construction of wastewater treatment plant of Athens on Psyttalia Island (capacity: 1,000,000 m³/d, budget 240 million Euros) and the plant for thermal processing of municipal sludge management (capacity 1400 wet ton/d, budget 36 million Euros), and as staff of the **Hellenic Central Water Agency**. During the above period he represented Greece in the WG5 Special Committee of European Union, which was responsible for the elimination of toxic substances from surface and underground waters, in relation with the **Water Framework Directive 2000/60EC**. In 2008, Dr. Gikas **drafted the first legislation on water reuse criteria for Greece** (FEK B2089/9.10.2008). He was also member of the committee of the Ministry of Environmental Planning and Public Works for the revision of discharge limits to the **Asopos basin**, and for the remediation of the greater Asopos region. In 2007, he worked on a research study ordered by the **Integrated Waste Management Board of the State of California**, on the potential for biogas production from municipal solid waste.

Dr. Gikas studied **Chemical Engineering at the Technical University of Athens**. His bachelor thesis was on the “Production of Proteinase from Genetically Modified Cells *Lactobacillus plantarum*”. He did his PhD at the **Department of Chemical Engineering, Imperial College, London, UK**, with title “The Influence of Biomass Activity on the Performance of Immobilized Cell Bioreactors”. During his postgraduate studies he received the “Eugenides Foundation” grant, a grant from the British “Science and Engineering Research Council” and two grants from the European Union (“BRIDGE” and “Human Capital and Mobility” programs). He also received two grants for the presentation of his work in international conferences (from the “Society of Chemical Industry, UK” and from the “Institution of Chemical Engineering, UK”). After he got his PhD, he worked in Imperial College for the scale up of a College's patent on the remediation of toxic wastewaters using membrane technologies and microbial degradation. This last work awarded the “Smart Award” of the British Ministry of Research and Technology.

Between 1997-2002, Dr. Gikas worked as **Processes and Operations Manager** of “Delmar Technology S.A.”, a company specializing in industrial wastewater treatment. Among other tasks, he was responsible for the **scaling up** of a patented process for chemical treatment of industrial wastewaters. During his occupation to the above company, he supervised industrial and research projects in more than 10 countries with total budget over one million Euros.

Dr. Gikas is the author of more than 50 scientific articles, and he has presented his research findings in more than 100 conferences. Dr. Gikas is serving as reviewer in more than 30 scientific journals. Dr. Gikas serves as **associate editor** for the "**Journal of Environmental Management**", an ISI journal published by Elsevier, with impact factor of 2.73, member of the **editorial boards** of the "**British Journal of Environment and Climate Change**", the "**Journal of Biomedicine and Biotechnology**" and "**Heliyon**", a new multidisciplinary journal by Elsevier.

Between 2010-2013 Dr. Gikas was an elected member of council of Technical Chamber of Western Crete, Greece, and vice member of the steering committee of the above council, since 2010. In 2012, Dr. Gikas was elected as head of the union committee of academic staff of the Technical University of Crete.

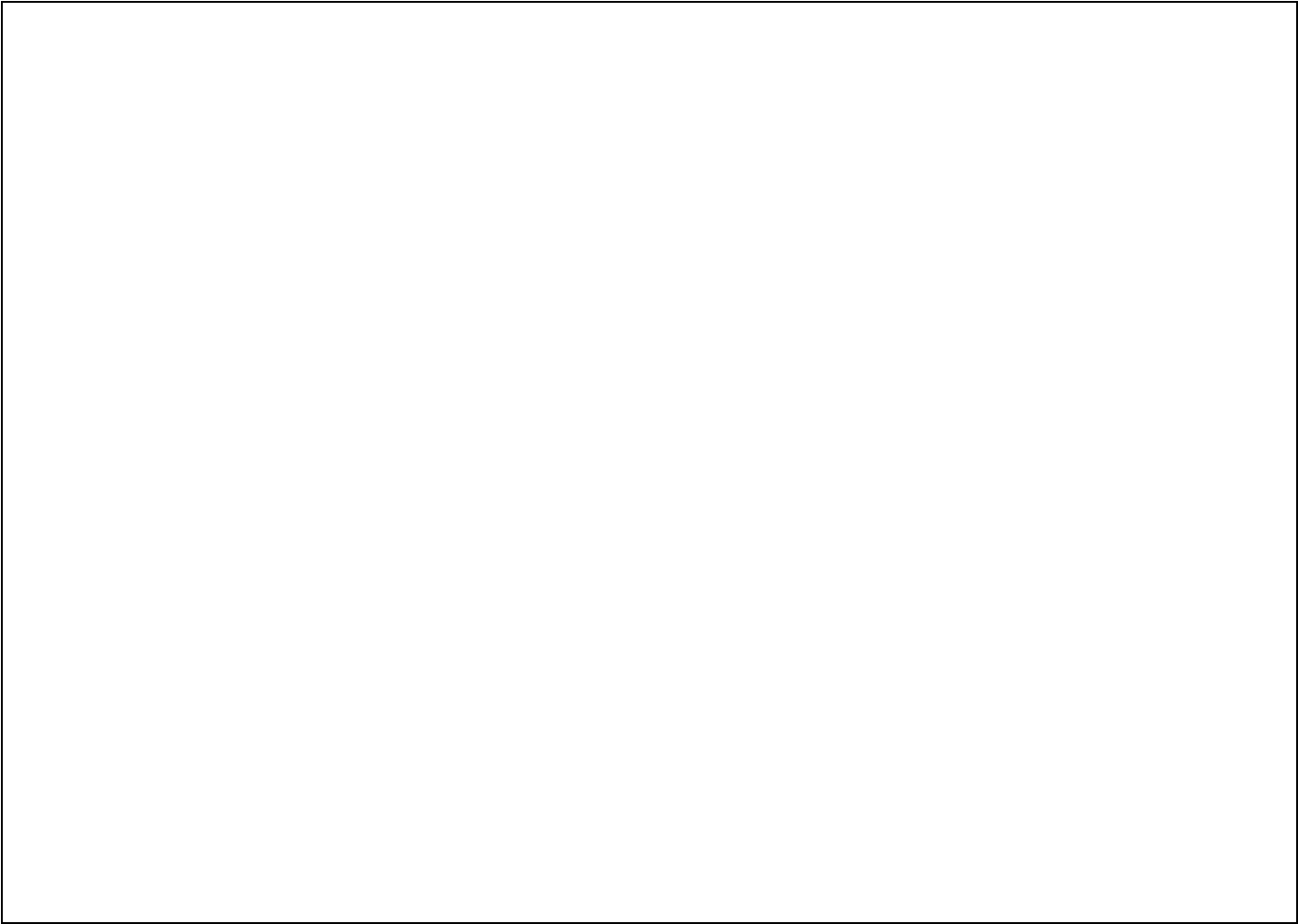
Selected Publications

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- P. Gikas**, 2013, "Wastewater Treatment Plants as Net Energy Production Factories", International Conference on Environmental and Hazardous Substance Management towards a Green Economy (EHSM 2013), 21-23 May, Bangkok, Thailand.
- V.M. Daskalaki, H. Marakas, D. Mantzavinos, A. Katsaounis and **P. Gikas**, 2013, "Use of Seawater for the Boron-Doped Diamond Electrochemical Treatment of Diluted Vinasse Wastewaters", *Water Science and Technology*, Vol.: 68, Iss.:11, Pp.: 2344-2350.
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